CHAPTER 11 FUTURE STUDY

Because of the magnitude of the proposed project, early efforts in engineering study can pay significant benefits in the overall project cost. The following areas are recommended for additional study.

Design Criteria – A preliminary criteria has been presented for review. As discussed in the report, these criteria drive the design of the line, provide reliability levels, and ultimately determine cost. It is recommended that a detailed weather study be performed to determine the historical weather record as well as analytical techniques to determine the likelihood of conditions for weather events, i.e. icing, wind, and tornadic events. The details of this study would create confidence in the mechanical loading requirements for the project and level of reliability desired.

The design criteria for this subject line was for 500kV operation. If the 230kV or 345kV alternatives are selected, the level of reliability and conditions would be analyzed differently.

Load Flow Modeling – As discussed in the conductor study section, a more rigorous load flow model and analysis will be necessary that will accurately predict the expected levels of energy transmitted over the subject line. This study will be necessary for proper conductor selection and station equipment design.

Lightning Study – A rigorous lightning analysis for the geographic location of the line should be performed. These studies are dictated by lightning strike information collected and tabulated for the United States. This study will determine the basic insulation level for the project and electrical design.